

# CHEWING GUM WRAPPER MODULES

by VALERIE VANN - 1994

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Drawing & Text March 1996

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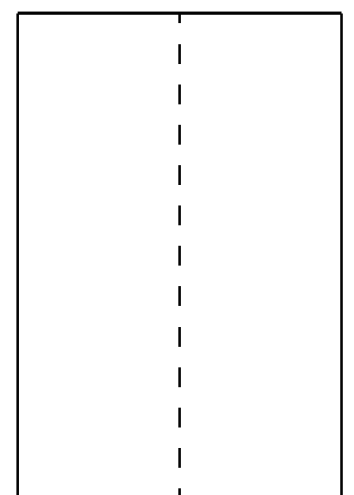
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The first modular origami unit many people learn is the square unit of the six-piece cube by Mitsunobo Sonobe. It was the first I learned over 30 years ago. There are an incredible number of variations on the basic geometry of the Sonobe Unit and its assembly method. Each unit has 2 pockets and 2 tabs (or points). In some variations the tabs "LOCK" into the pockets to produce surprisingly sturdy models. Tomoko Fuse uses a variation of the basic Sonobe Unit in which the tab crosses a valley fold in the pocket unit which effectively locks the units together, although it also makes the final units of a model more difficult to assemble.

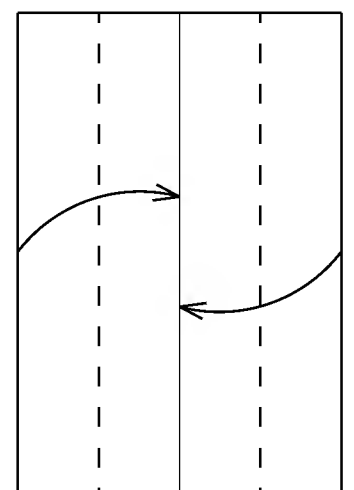
Modular origami fans will recognize that while the GUM WRAPPER UNIT presented here start with rectangular paper, they are of Genus Sonobe, species Tomoko Lock. Years ago, each stick of gum came with a colorfully printed sheet of rectangular paper wrapped around it. Now the fancy patterned wrappers are mostly found on overpriced 5 piece paks from newstands and vending machines, though occasionally even supermarket 15-18 stick paks still have fancy wrappers. There's no way to tell from the outside. Even worse, some brands have gone to boring white, or almost as bad, white with a narrow blue or red border, though these are usable. CareFree is one brand that continues to yield either the fancy logo printed wrappers yellow, red, green or blue (depending on the flavor), or in the large packages, a solid colored duo paper in pale yellow, green, blue or cherry. The best strategy for collecting wrappers is to carefully pull stick wrapped in its inner wax paper out of the colored paper, leaving the colored wrappers in the main outside wrap until the gum is all gone. Then carefully disassemble the package and flatten out the colored wrappers. CareFree Gums also don't use glue on the wrappers; others do, and you have to scrap the glue off. Flatten the soft round creases of the wrappers. One 15 stick pak or 3 fancy 5 stick paks will make a 12-unit Sonobe-Unit Octahedron; 2-15 unit paks will make a lovely 30-piece Sonobe Unit Icosahedron, and so on. My co-workers children delight in carefully preserving the packages intact for me. I've also discovered that if a couple of tightly rolled inner wrappers are inserted in the model, they will rattle and whisper inside in a manner quite intriguing to cats, and the models are securely locked sufficient to survive a fair amount of feline bashing. To dig into Sonobe Modules and their infinite variations, check out the classics: Kasahara & Takahama - Origami for the Connoisseur (OFTO) Tomoko Fuse - Unit Origami Multidimensional Transformations (UMTD) Or just about any other book by Fuse, or about Kusudama (origami ornaments)

--- Mountain Fold  
--- Valley Fold  
— Existing Crease  
..... Hidden/Guide Line

1 White / Inside UP

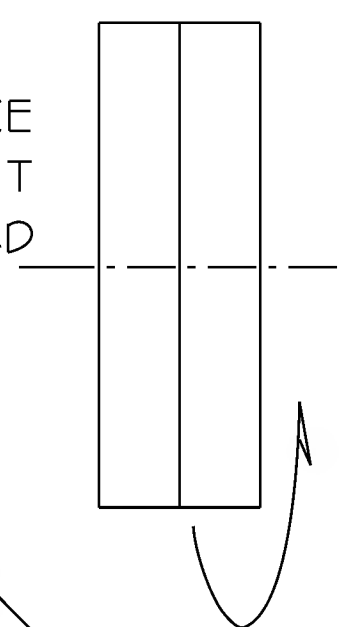


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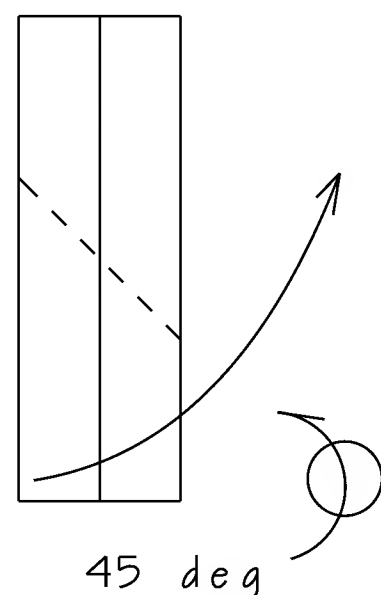
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MAKE  
SOFT  
FOLD

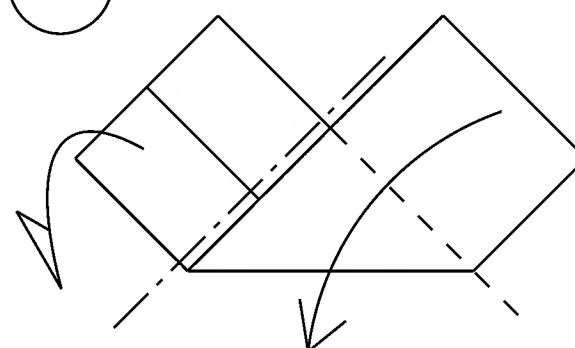


3 MAKE SOFT  
CREASES  
UNFOLD TO STEP 2

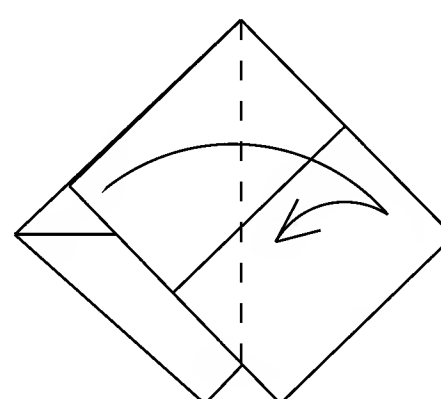
4



5 BIGGER

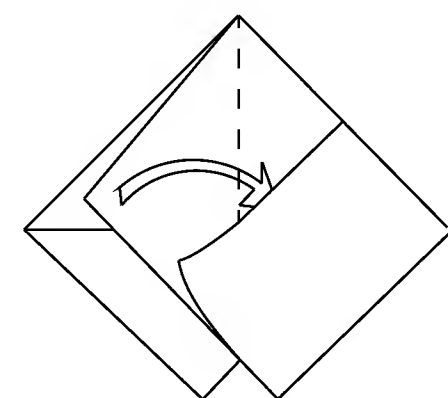


6 BIGGER



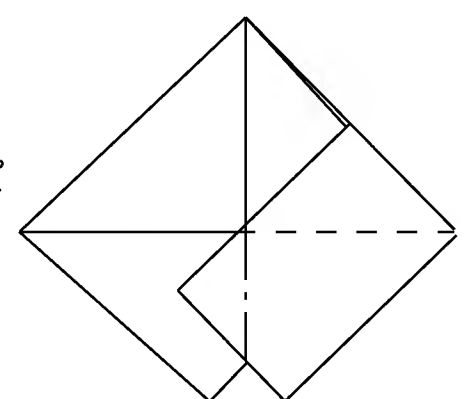
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TUCK IN  
REPEAT  
BEHIND



8

BIGGER



RATING - Units: Simple; Assembly: Intermediate

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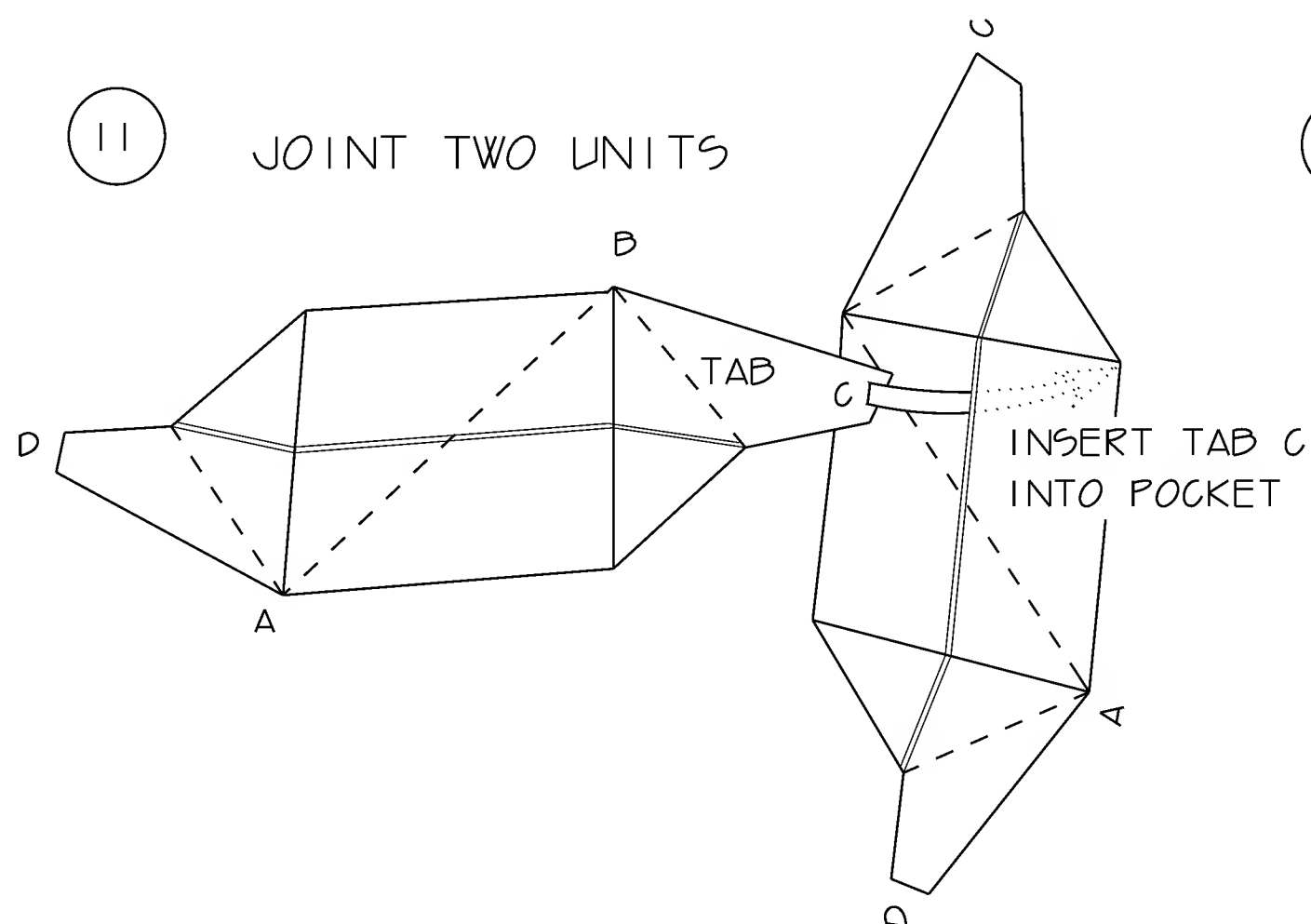
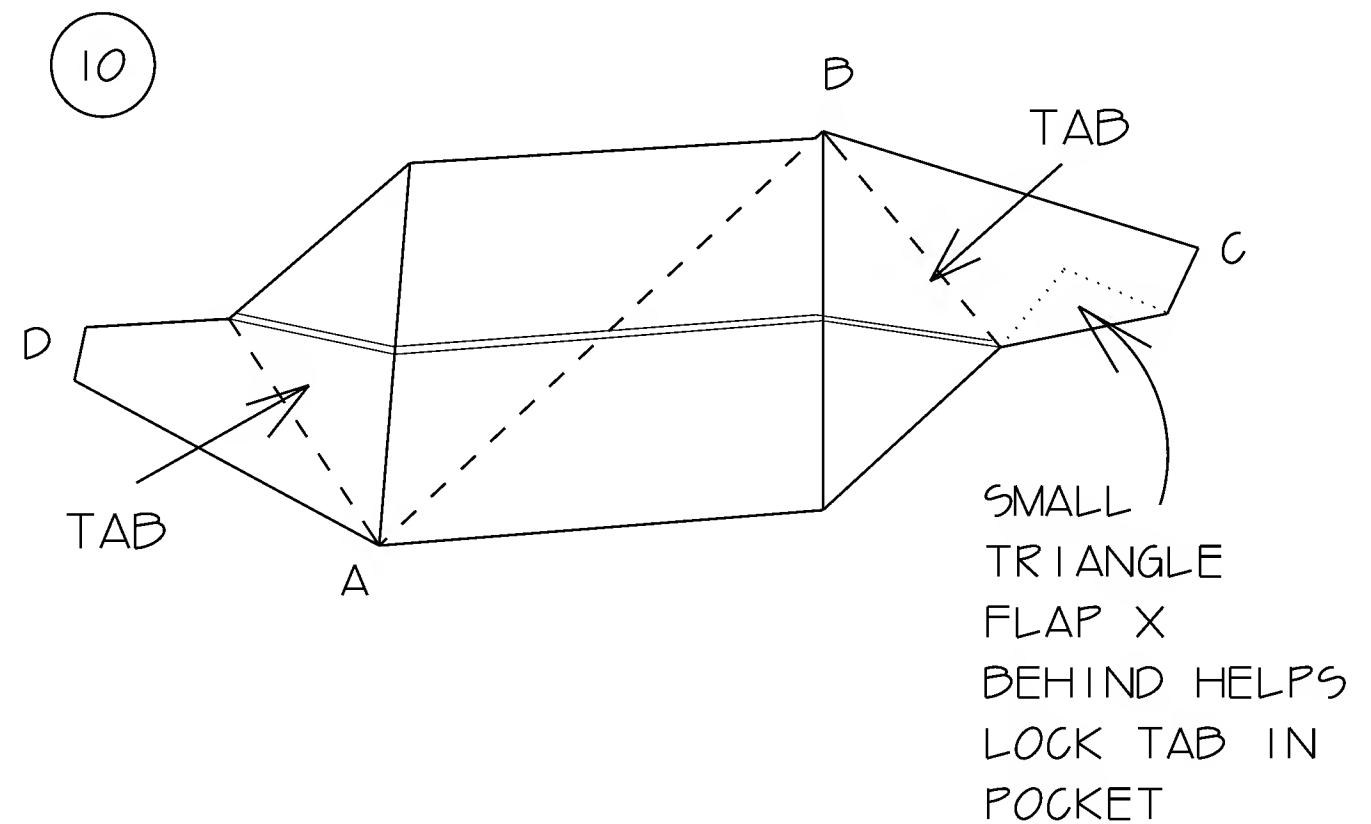
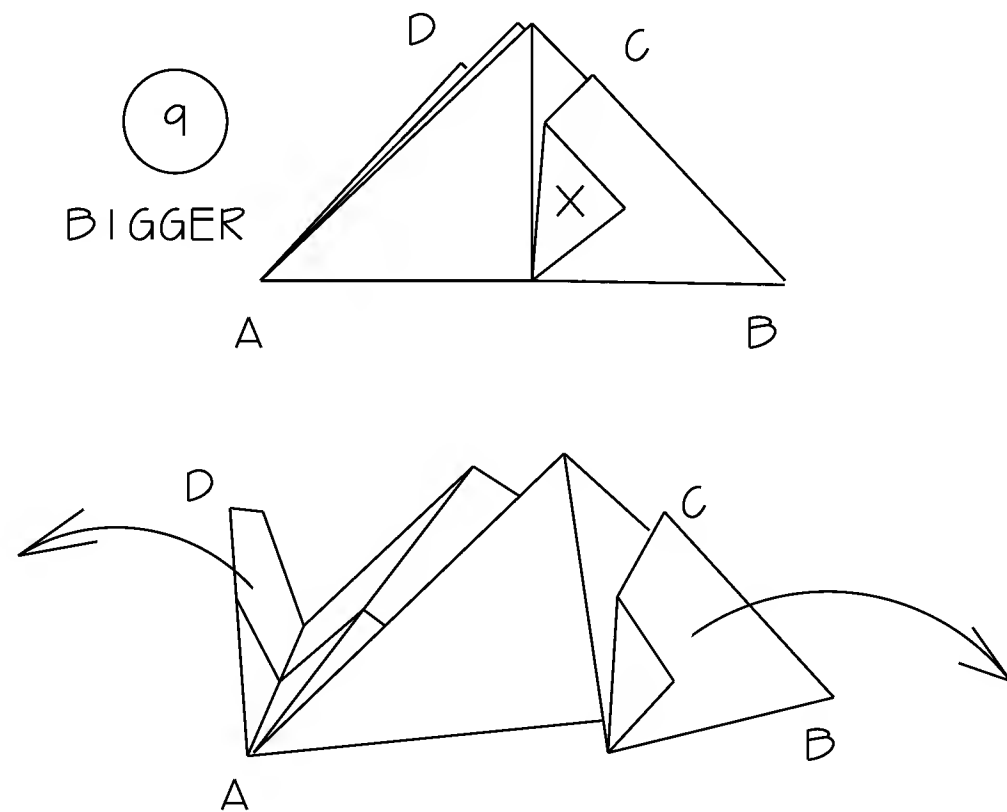
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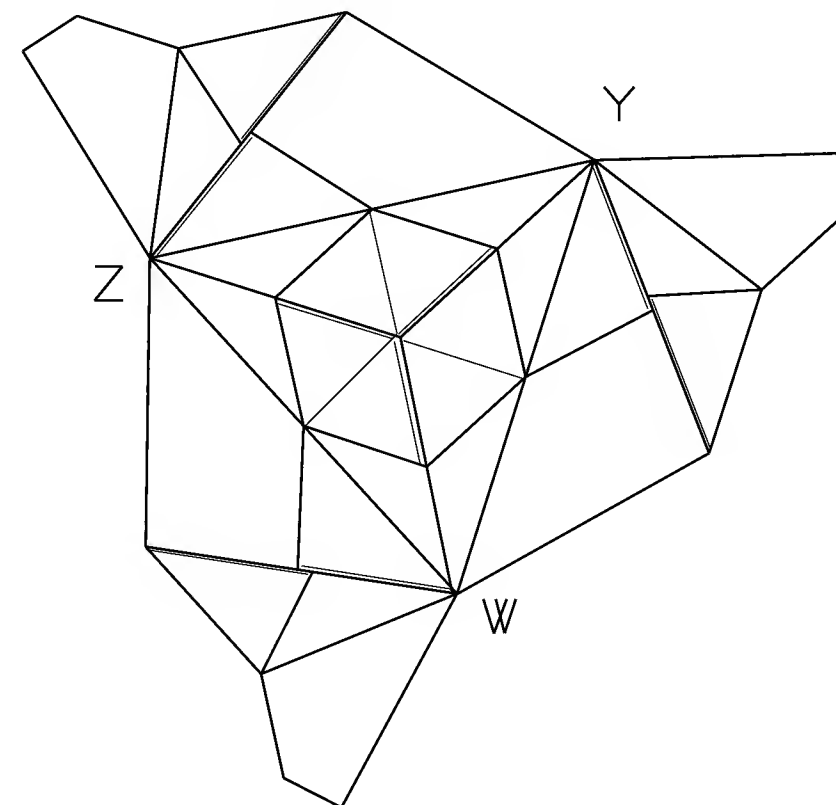
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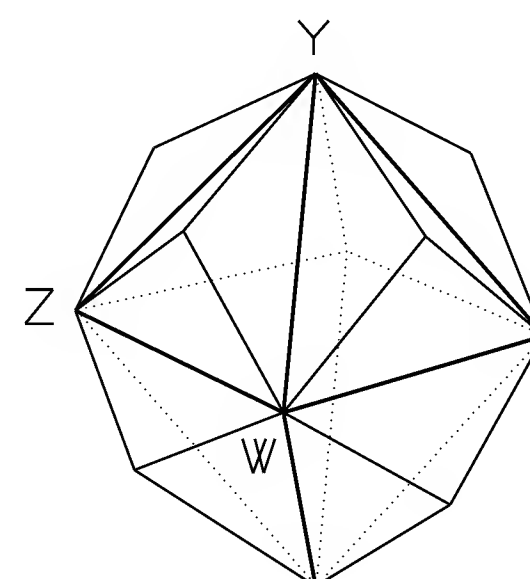
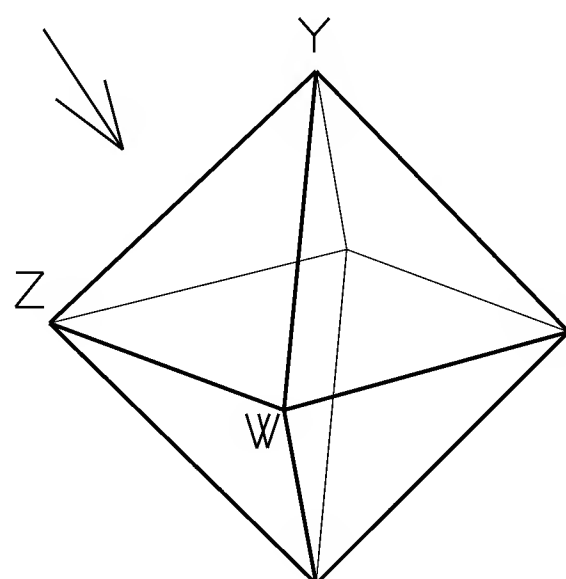


12

JOIN WITH A THIRD UNIT TO MAKE A PYRAMID.



THE CENTER VALLEY FOLD A-B OF EACH UNIT, AND THE BASE OF THE PYRAMID FORMED BY JOINING THREE UNITS, W-Y-Z, ARE EQUIVALENT TO THE EDGES OF OF THE TRIANGULAR FACES OF THE MODEL. TWELVE UNITS WILL MAKE AN OCTAHEDRON WITH A PYRAMID TAKING THE PLACE OF EACH TRIANGULAR FACE. THE WIREFRAME OR OUTLINE DIAGRAM BELOW SHOWS THE TWELVE EDGES WHERE THE BASES OF THE PYRAMIDS FIT TOGETHER.



RATING - Units: Simple; Assembly: Intermediate